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ABSTRACT

A study tested the assumption that a number of independent constructs are needed to explain phenomena associated with spoken language communication. Measurement was operationalized through the use of categories of talk statements used in interpersonal communication. These categories, labeled "comemes," were derived through the use of an open-ended questionnaire which prompted people to report what they say or do in talk communication. A self-report instrument, the Talk Assessment Survey, was developed from a list of 141 comemes and 11 primary and 3 second-order common fractions were identified. The instrument was tested on 224 subjects. Scales estimating the factors were found to have optimal internal-consistency reliability and a high degree of relative statistical independence. The factor scales were also found to be differentially related to several quasi-independent measures. The statistical independence among the three second-order factors suggests that there are probably at least three broad dimensions of talk used in interpersonal communication. The comeme factors may represent underlying source structures of spoken language communication. (Seven tables of data are included and 72 references are attached.) (Author/MG)

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# DIMENSIONS OF TALK USED IN INTERPERSONAL COMMUNICATION: THE SCALES OF THE TALK ASSESSMENT SURVEY

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## ABSTRACT

### DIMENSIONS OF TALK USED IN INTERPERSONAL COMMUNICATION

This study tested the assumption that a number of independent constructs are needed to explain phenomena associated with spoken language communication. Measurement was operationalized through the use of categories of talk statements used in interpersonal communication. These categories, labeled "comemes," were derived through the use of an open ended questionnaire which prompted people to report what they say or do in talk communication. A self-report instrument, the Talk Assessment Survey, was developed from a list of 141 comemes. Eleven primary and three second order common factors were identified. Scales estimating these factors were found to have optimal internal consistency reliability and a high degree of relative statistical independence. The factor scales were also found to be differentially related to several quasi-independent measures. The statistical independence among the three second order factors suggests that there are probably at least three broad dimensions of talk used in interpersonal communication. The cometne factors may represent underlying source structures of spoken language communication.

Although communication is occasionally characterized in a manner which might suggest that it is a single or unitary construct or process (e.g., transmission of information from one place to another, Miller, 1951; an effort after meaning, Barnlund, 1968; an act of participation, Bailey, 1984) scholars would generally agree that communication is a concept that has multiple meanings. According to Littlejohn, communication "....is a process that can fruitfully be conceptualized in a variety of ways. No single conceptualization is necessarily best...it is better not to conceive of communication as one kind of activity. It is not a singular concept" (1982, p. 242).

Despite the recognition that the concept of communication has multiple meanings, relatively few researchers have utilized a multidimensional approach to defining independent constructs within specific domains of human communication. A multiple-construct or multidimensional approach takes a set of measures which seem to define a certain phenomenon, such as intelligence, communication apprehension, or interpersonal talk, and seeks statistically independent constructs within that phenomenon. The search is usually guided by a set of hypothetical constructs. These empirical constructs are considered to be independent when one construct informs us about one aspect of a particular phenomenon but not about other aspects of that phenomenon. Such independent constructs account for different sources of variance for the phenomenon.

There have some efforts to investigate multiple communication constructs within the framework of a multidimensional or multiple-construct model using multiple-variable structural analyses. Using this model, different dimensions of group communication (Bales, 1950, 1970), communication apprehension (Friedrich, 1968; McCroskey, 1982; Cirlin, 1985; and Booth-Butterfied, 1985), communication reticence (Bell, 1986), communication competence (Cegala, Savage & Brunner, 1982; Duran, 1983; Cupach & Spitzberg, 1981), communication motivation (Chmielewski, 1986), and argumentativeness (Infante & Rancer, 1982) have been identified.

Within the domain of communication style, Norton (1978) identified ten factors which seem to be fairly independent measures. Burgoon and Hale (1984, 1987) identified eight reliable dimensions of relational communication themes indicating that relational communication is multifaceted. The work of Wish and associates (Wish et al., 1980; D'Andrade & Wish, 1985) represents a noteworthy effort to dimensionalize the speech acts of Austin (1962) and Searle (1969) observed in dyadic communication using rater data.

Although the above studies test multiple-construct theory within certain areas of communication, they did not (with the possible exception of Norton, 1978) specifically indicate that the dimensions they identified represented independent communication constructs. None of the studies provided adequate evidence that the constructs were in fact independent, e.g., a measure of uniqueness, differential construct validities, etc.

This paper is a summary of a four year study designed to test for the presence of independent factors of talk as these factors are perceived to be used within the context of interpersonal communication. Out of this effort there has emerged specific and reliable factors and preliminary factor scales which operationally define a multiple-construct theory of self-perceived talk communication.

## THE SPECIFIC VARIABLE STRUCTURE

Using Zetterberg's (1965) argument "that a theory does not have any subject matter that can be called exclusively its own if all its primitive terms are borrowed terms from other sciences" (pp. 50 -51), Dance (1982) concludes that speech and spoken language are primitive minimum (unique to) terms of speech communication and that human language serves as the "principal explanatory variable for....specifically human communication" (p. 121). Influenced by this position, variables selected for use in this study to test for multiple-talk constructs were based on spoken language. The variable base used in almost all of the empirical studies attempting to define different constructs of communication (e.g., reticence, styles) was built around personality or psychological (self-attitude) measures and not on spoken language variables unique to speech communication.

But what variables <u>are</u> unique to speech communication? In linguistic analysis, the phoneme represents the smallest unit of phonetic expression (Littlejohn, 1983), the morpheme is the smallest unit of meaning (Tzeng & Wang, 1983), and the speech act constitutes the basic unit of linguistic communication (Searle, 1971). These variables, however, are phonetically and lexicologically determined and are too numerous to lend themselves to practical measurement.

The goal of this research was to construct variables based on empirical observation and which were broader in scope than say the speech act. Speech act <u>categories</u> tend to meet this criteria, but again, they are lexicologically based (Austin, 1962; Searle, 1969; and Ballmer & Brennenstuhl, 1981). Specific statements that people are observed to say in interpersonal communication, or talk expressions, were also ruled out because again they are too specific and numerous for practical measurement. It was discovered, however, that when people are asked what they say when they engage in talk communication, they formulate their responses in categories of talk expressions. These categories were labeled "comemes" and became the variable structure for this study. They are empirically determined, and for this study, they are considered to represent the most <u>basic structure</u> of talk communication.

Whereas the talk expression is what we observe to be the specific statements individuals use in interpersonal communication, the comeme represents the structuring of those talk expressions. For example, "giving information" is considered be a comeme defined by specific talk expressions such as "The store is on Oak street." Through the use of the comeme, the vast number of talk expressions or statements could be reduced to a manageable set of variables to be used to test a multiple-construct theory of talk communication.

## DEVELOPMENT OF THE TALK ASSESSMENT SURVEY

A list of approximately 450 comemes was constructed by asking subjects, through an open ended questionnaire, to describe what they said or did in recent interactions with others. Over 95 percent of the statements were classified as comemes, supporting the assumption that when people describe what they say in talk communication, they formulate their descriptions into comemes. A final list of 90 comemes, organized into 12 a priori determined hypothetical constructs, were used to construct a pilot instrument. Using a Likert-type (1932) response format, subjects were asked to respond to their use of the each comeme in recent interactions with others.

Eight reliable simple structure principal components were identified in this instrument. These eight factors were then used as a basis for developing a new list of 15 hypothetical constructs. New comemes were added to the original list of 90 to measure these 15 hypothetical constructs resulting in the Talk Assessment Survey (TAS) made up of 141 comemes. Each comeme used four categories of responses weighted from zero to three. The pilot instrument and the Talk Assessment Survey (TAS) were administered to 169 and 224 subjects respectively. The mean age of persons completing the TAS was 27.20 (standard deviation of 10.76); mean education was 14.52 (standard deviation of 1.70); 38 percent were women.

## METHODOLOGICAL GUIDELINES USED TO TEST FOR INDEPENDENT CONSTRUCTS

A number of specific guidelines were followed to test for independent multiple-constructs within the domain of talk communication. These guidelines have been described in more detail elsewhere (Wanberg, Horn, & Foster, 1977; Wanberg & Horn, 1983; Horn, Wanberg, & Foster, 1987). They will be briefly outlined.

First, the internal reliability of the constructs must have both "fidelity" (items measuring the construct are highly related) and "bandwidth" (each item represents a different expression of the construct) (Cronbach, 1984). Internal consistency reliabilities (ICR) between .70 and .90 would meet these conditions (Cronbach, 1984).

Second, constructs will demonstrate independence. Independence will be operationally defined by requiring that the amount of variance the items in each factor have in common with each other (its ICR) be substantially larger than the variance the factor has in common with all other factors combined or the factor's squared multiple correlation (SMR) (Horn, Wanberg, & Foster, 1987). The difference between the ICR and SMR represents the percent of unique variance (PUV) that a factor measures which is not measured by all of the other factors combined.

Third, constructs will have different construct validities providing further evidence of construct independence (Campbell & Fiske, 1959; Cronbach, 1986; Horn, Wanberg, & Foster, 1987). Two constructions would be considered as independent if one construction

has a significant correlation with an independent variable and the other construction has a zero correlation with that same variable.

Finally, constructs will be linked together so as to form constructs at a more general level of measurement. This higher order analysis makes it possible to determine whether there are broader influence operating among specific measures, e.g., a general factor associated with what is referred to as human communication.

## SPECIFIC METHODS AND PROCEDURES

Following the above guidelines, a number of specific analytical and statistical methods were used to study the internal structure of the TAS in order to search for specific and common factors and then to develop preliminary factor scales which might operationally define independent talk communication constructs.

Principal components (PC) and common factor (CF) analyses were used to search for specific and common factors in the self-report instruments. Simple structure solutions were accomplished through the varimax (Kaiser, 1958) and oblimin (Carroll, 1959) methods. Criteria for factor selection included the Guttman-Kaiser-Dickman root-one criterion (as explained by Horn, 1965a), the scree test (as discussed by Horn & Engstrom, 1979), selection of factors which had at least three variables with salient loadings, and the logical interpretation of the factors.

Before discussing the methods used in factor scoring, a distinction between factor analysis and factor measurement should be made (Horn, Wanberg, & Adams, 1982). Procedures of factor analysis are used to identify factors as independent sources of influences operating in a set of variables. Factor measurement is the accounting for an influence which operates through a linear combination of a set of variables. Factor measurements are based on procedures of factor analysis, but this does not guarantee that these factor measurements will be indicative of independent influences. Independence among measures depends on the kind of factor measurement used.

A variety of methods were used in factor measurement and factor scale construction. The regression method of factor scoring was used in preliminary factorings and the non-overlapping, unweighted salient loadings method (Horn, 1965b) was used in the final stages of factor scoring and scale development. Extension analyses (Horn, 1973) were used at various stages of analyses in order to study the relationship between factor scores and variables not included in the set of factored variables. The internal consistency of each scale was studied by examining loadings on the first principal component (FPC) of a principal components analysis of the items of each scale; and by examining the internal consistency reliability (ICR) of each scale using Cronbach's (1951) alpha.

Construct independence was examined by calculating each scale's percent unique variance (PUV) with a PUV value of .10 or greater used as a guideline to indicate that a scale is measuring something unique

not measured by all other scales combined (Horn, Wanberg, & Foster, 1987). Construct independence was also evaluated by studying the correlations between primary and second order talk scales and several quasi-independent variables (Campbell and Fiske, 1959). These variables included gender, age, education, and the perception of the socioeconomic status and the communication pattern of the childhood family.

Higher order constructs were identified by factoring the correlations among the oblique (correlated) factors (Gorsuch, 1974, McDonald, 1985), and the correlations among the final primary scales. The same methods described above to construct primary factor scales and to study the properties of these scales were applied to the second order solutions.

## SUMMARY OF RESULTS OF ANALYSES

### The Core Factor Pattern and Primary Factor Scales

Using the above defined methods, a core set of 49 comemes in the TAS was selected for study. Eleven stable common factors were identified among the 49 variables, and the oblimin factor solution is found in Table 1. Using factor scoring and extension analyses to determine how the remaining non-core items correlated with the 11 core factors, 41 extension items were selected to augment the measurement of the 11 primary factors. The final 11 primary factor measures (factor scales) derived from this procedure are found in Table 2 (the 49 core items are indicated by an asterisk).

(Insert Table 1 and 2 about here)

### Second Order Factor Pattern and Factor Scales

A second order CF solution was calculated from the intercorrelations among the oblique primary factors (upper triangle of Table 3) and among the factor measurements (lower triangle of Table 3). Three factors emerged before the latent root dropped below 1.0, as can be seen in Table 4. Using factor scoring and extension analyses, 20 variables were selected to measure Dimension A (INVOLVEMENT), 18 items were selected to measure Dimension B (BELLICOSE), and 13 items were selected to score Dimension C (INFORMATIVE). These variables were then factored, and three factors emerged before the latent root dropped below 1.0. This solution, found in Table 5, includes the items measuring each factor scale. The intercorrelations among the second order factor scales are found in Table 4.

(Insert Table 3, 4, and 5 about here)

### Psychometric Properties of the Factor Scales

The measurement properties of the 11 primary and the three second order factor scales are found in Table 6. Table 7 provides the correlations between all of the factor scales and the five quasi-independent measures.

Factor Scale Reliability

Internal consistency reliabilities (ICR) for the primary and second order factor scales clearly fall within the optimal range as noted in Table 6. As expected, the ICRs for the second order scales are higher than for the primary scales (mainly because of the length of the scales). The ICRs for the primary scales indicate that each scale has good bandwidth and fidelity.

(Insert Table 6 about here)

Construct Independence of Factor Scales

Three types of analyses were used to evaluate the construct independence of each scale: the percent unique variance (PUV); the intercorrelations among the scales; and evidence of different construct validities.

The percent unique variance (PUV) values for each scale, as noted in Table 6, are very high. All well exceed the .10 criteria. Most striking are the high values of the second order PUV values indicating that the measures are very separate and independent.

Correlation values among the primary scales are, for the most part, quite low (see Table 3). The intercorrelations among the second order scales are very low (Table 4). The highest correlation among any two primary scales is .54, indicating, that at the most, these two scales have only 29 percent common variance.

Correlations between the 14 scales and the quasi-independent measures, found in Table 7, demonstrate that the scales have different construct validities. For example, at the primary scale level of measurement, whereas SUPPORT, EMOTIVE, HELPSEEK, and APOLOGIZE have significant positive correlations with female gender and BOAST has a significant positive correlation with male gender, the remaining scales have essentially zero correlations with gender. Whereas younger subjects score higher on BOAST and CRITICIZE and older subjects score higher on SUPPORT, the remaining scales have essentially zero correlation with age. Whereas persons with high scores on INFORM and SUPPORT judged their childhood family to have high communication skills and persons with high scores on RETICENT judged their childhood families to have poor communication skills, the remaining scales all have zero non-significant correlations with JCS. At the second order level of measurement, whereas INVOLVEMENT has a positive correlation with female gender, BELLICOSE has a positive correlation with male gender, and INFORMATIVE has a zero correlation with gender.

(Insert Table 7 about here)

From the PUV values, the scale intercorrelations, and the evidence of different construct validities, it is apparent that each of the 14 talk constructs demonstrates considerable unique variance. This provides mensurational evidence that these constructs represent

independent dimensions of talk communication.

What is most striking is the independence found among three second order scales. This is particularly noted in the factor solution of the 51 items making up the second order scales (see Table 5). Three factors emerged before the latent root dropped below 1.0, and all of the items have salient loadings on their respective scales, and low loadings on the other two scales.

In summary, three broad dimensions appear to represent different kinds of self-perceived talk communication: INVOLVEMENT, BELLICOSE, and INFORMATIVE. Most important, however, is that not one but three second order factors were needed to account for the major portion of variance among the primary TAS scales. One broad dimension will simply not account for variance associated with self-perceived involvement in talk communication. This finding is further supported by the fact that the first principal component of a factor analysis of 85 items in the TAS accounted for only 16 percent of the variance in the matrix. There is no one single unitary dimension of talk communication as measured by the TAS.

## DISCUSSION OF FACTOR SCALES

The primary and second order factors identified in the TAS and the subsequent factor scales constructed from those factors lend support to the thesis that the comemes form independent dimensions of talk communication. Each of the factor scales will now be discussed.

### The Primary Factor Scales

**Scale 1: Supportive concern (SUPPORT).** SUPPORT defines the use of comemes that convey supportive confirmation and the facilitation of positive involvement of others in interpersonal communication. SUPPORT appears to have broad representation in empirically defined constructs in the literature and will probably share common variance with the dimensions of giving help and solidarity (Bales, 1950), openness (Norton, 1978), meaning-centered empathy and social adaptability (Duran, 1983), and laudativeness and praise (Wigley & Graham, 1986). The use of the SUPPORT comeme structure is probably the primary way by which a supportive climate of interpersonal communication is established.

**Scale 2: Hypercritical, evaluative (CRITICIZE).** CRITICIZE measures a talk construct through which angry, defensive, judgmental and critical attitudes are conveyed in interpersonal communication. It will probably share variance in common with the empirically defined constructs of antagonism and tension release (Bales, 1950), dominant communication style (Norton, 1978), communication apprehension (McCroskey, 1982) and verbal aggressiveness (Infante & Wigley, 1986). CRITICIZE may be the structure through which the defensive climate in interpersonal communication (Gibb, 1972) is realized.

**Scale 3: Facilitative information input (INFORM).** This comeme structure is an interactive communication dimension and represents an effort to give information to others, problem solve, provide solutions, and facilitate resolutions (e.g., of conflict). It appears to represent the empirically defined dimensions of giving orientation, opinions, and suggestions (Bales, 1950), informing (Wish et al., 1980) and substantiation (Fisher, 1970).

**Scale 4: Reticence versus talkativeness (RETICENT).** Persons with high scores on RETICENT are quiet and non-talkative, do not initiate discussion, do not engage in frivolous talk, and are reticent in terms of initiating or maintaining communicative interaction. At the low end it measures loquacity. It is a process measure in that it indicates how people are involved in human communication (e.g., seldom led discussion).

What, however, does RETICENT really represent in communication? Is RETICENT due mainly to an unwillingness to communicate (Burgoon, 1976), communication apprehension (McCroskey, 1982) or an introverted and avoidant personality pattern? Does it measure loquacity (represented by a low score on RETICENT)? It may be that RETICENT is not a comeme structure per se, but represents a dimension of nonverbal communication. The loquacity end of this dimension does however contribute significant variance to the second order factor INFORMATIVE.

**Scale 5: Argumentation and persuasive (ARGUE).** This comeme structure conveys an argumentative, persuasive, and defensive feature in talk communication. The comeme "attempting to persuade someone" correlated rather high with both ARGUE and BOAST, and was thus not included in the measurement of ARGUE. Although ARGUE has a quality of persuasive involvement, it has a much stronger emotional negative "tone" than merely that of persuasion, e.g., "use angry words."

In the empirical literature, argue may account for variance associated with Bales' (1950) dimensions of shows antagonism, tension release, and disagrees; the contentious communication style (Norton, 1978); argumentativenss (Infante & Rancer, 1982); and forceful assertion and dissenting (Wish, et al., 1980).

**Scale 6: Emotional, expressive (EMOTIVE).** This comeme structure conveys emotional or affective expression. Persons scoring high on EMOTIVE will use comemes that express the emotions of guilt, fear, and sadness, emotional words in general, and personal problems. Whereas SUPPORT measures a more positive quality of emotionality (use loving words), EMOTIVE is more of an expression of negative emotions. EMOTIVE most likely accounts for the more explicit emotional messages conveyed in speech communication. It may share variance in common with showing tension (Bales, 1950), the openness communication style (Norton, 1978), and Duran's appropriate disclosure measure (1983). It does not appear to be as well represented in the literature.

**Scale 7: Reflective, other oriented (FEEDBACK).** Persons scoring high on FEEDBACK use comemes to summarize, paraphrase, interpret, reflect, and clarify what others say in interpersonal talk. It

represents an other-centered type of speech communication. It is this comeme structure which makes the feedback loop in human communication possible. Persons in the help-intended professions will score high on this scale and it measures skills that are used in therapeutic counseling (Ivey & Simek-Downing, 1980; Wanberg, 1983; Moursund, 1985). It may share variance in common with the empirically defined dimensions of attentive communication style (Norton, 1978), and Duran's (1983) meaning-centered empathy measure.

Scale 8: Help and information seeking (HELPSEEK). Persons who use this comeme structure will readily ask questions, ask for guidance, ask for help in solving problems, ask for information, and ask for help in finding things. It has poor representation in the literature. It may share common variance with Bales' (1950) ask for opinions, suggestions and information, Norton's (1978) openness style, and Duran's (1983) appropriate disclosure measure.

Scale 9: Request pardon or forgiveness (APOLOGIZE). This construct measures the use of comemes to seek forgiveness, to express regret, to ask permission to speak, and to assume an apologetic role. It has significant positive correlations with the other talk constructs which convey a positive involvement in interpersonal communication. Some persons make minimal use of this comeme structure. Its strong positive correlation with EMOTIVE indicates there is an emotional aspect to APOLOGIZE. Although this is a rather commonly used comeme structure in communication, it is not empirically represented in the literature. It has been given some theoretical treatment by Fraser (1981), Goffman (1971), and by the speech act theorists (e.g., Bach & Harnish, 1979).

Scale 10: Aggrandizement of self (BOAST). BOAST is a talk construct which uses comemes to express arrogance, self-importance, personal achievement, and the aggrandizement of self. It has a relatively high correlation with CRITICIZE and ARGUE, and a significant correlation with INFORM and FEEDBACK. On one hand it seems to measure a negative arrogant involvement with others, yet at the same time there is a positive quality of talk communication measured by this construct. Thus, persons scoring high on BOAST may be doing so because they are in the position to give information (as with a teacher) or feedback to others (as in the role of counselor). Effective interpersonal communication may require some of the variance accounted for by BOAST.

Scale 11: Hope seeking, need fulfillment (EXPECTANT). This construct, which represents a hopeful, need fulfillment dimension of talk communication, is one of the self-disclosing factors of communication. It is measured by comemes which express hopes, wishes, dreams, desires, and likes. It also measures the need for the person to be confirmed by others, and the need to discuss and share personal problems. It is used to disclose both positive and negative aspects of self. Its positive correlation with EMOTIVE suggests it has a strong emotional-expressive quality.

Broad Dimensions of Talk

**Dimension A: Interactive involvement (INVOLVEMENT).**: The first second order factor brings together the talk constructs of SUPPORT, EMOTIVE, HELPSEEK, APOLOGIZE, and EXPECTANT to form a broad dimension of talk communication (see Table 3). FEEDBACK has a low but significant loading on this factor. This broad comeme structure accounts for variance in talk communication associated with giving support, disclosing emotions and feelings, affirming the value and worth of others, seeking apology and forgiveness, expressing hopes and dreams, seeking help and information, and, to a lesser extent, providing feedback on the observed behaviors and attitudes of others. It has two broad components: giving support to others; and disclosing self to others.

INVOLVEMENT seems to relate to a number of concepts in the theoretical literature including the relationship dimension (Fisher, 1980), rules conforming (Shimanoff, 1980), the linking function (Dance, 1982), and reciprocal intentions (Delia, et al., 1982). It will probably share variance in common with a number of empirically defined constructs including interaction involvement (Cegala, et al., 1981), communication adaptability (Duran, 1983), willingness-to-communicate (McCroskey & Baer, 1985), communication competence (e.g., Rubin, 1985), and a low score on communication reticence (Burgoon, 1976). It most likely represents the broad dimension of socioemotional involvement identified by Bales (1950).

**Dimension B: Argumentative and critical (BELLICOSE)**: The salient primaries in this broad talk communication dimension are CRITICIZE, ARGUE, and BOAST (see Table 3). INFORM also has a significant but lower loading on this dimension. This talk dimension measures the use of talk comemes to criticize, judge, boast, argue, persuade, convince, blame, dispute, disagree, coax, brag, charm others and to point out the important of self in interpersonal communication. Persons scoring high on this dimension would approach interpersonal communication in a bellicose, belligerent, and pugnacious manner. Persons with moderate to low scores would probably not be as bellicose, but more insistent and stubborn, and maybe even persuasive.

BELLICOSE may represent a number of theoretical concepts including the regulative rule (Cronen, et al., 1982), rule deviating (Shimanoff, 1980), persuasion (Littlejohn, 1982), and the regulative function (Dance, 1982). It seems to fit several empirical constructs including dominance (Norton, 1978), verbal aggressiveness (Infante & Wigley, 1986), and argumentativeness (Infante & Rancer, 1982).

**Dimension C: Information giving versus reticent INFORMATIVE).** A high score on this scale measures loquacity, information giving, and communication involvement; at the low end it measures communication reticence and avoidance. This dimension lacks the interactive quality measured by Dimension A. What is important about INFORMATIVE is that FEEDBACK has a significant though medium loading (.36) on this scale. This indicates that there is more to this dimension than

merely giving information. It seems to reflect a more objective dimension of communication.

This broad dimension seems to represent several concepts found in communication theory, including the content dimension (Fisher, 1980, information and coding (Littlejohn, 1982), information transfer (Shannon & Weaver, 1949), and the mentation function (Dance, 1982). INFORMATIVE may covary with a number of empirical constructs including communication competence (Rubin, 1985), a low score on communication avoidance (Bell, 1986), and the task function of group communication (Bales, 1950).

## SUMMARY AND CONCLUSIONS

The focus of this research has been narrowed to how individuals perceive themselves to use talk in interpersonal interactions. A variable structure, based on spoken language, was identified as the category of talk expression called the comeme. Through self-report instruments, the comeme generated underlying source structures (factors) that were internally reliable, statistically independent, and demonstrated to have different construct validities. These findings clearly indicate that individuals differ with respect to how they engage in interpersonal talk communication. The factor scales operationally define a multidimensional theory of interpersonal talk.

It appears that these factor scales may have both practical and heuristic value. One practical feature is that the factor scales can be used to construct a profile, as described in Figure 1, to describe how an individual uses these comeme structures in relationship to a reference group. Such a profile could help the communication specialist define some of the difficulties a particular person may have in interpersonal communication. The issue may not be that the individual communicates poorly or has a communication problem; rather, the issue may be that the individual is communicating primarily within a certain restrictive domain of comeme structures, or is unable to utilize those structures which may be necessary under some circumstances of human communication.

The talk scales can also be used to establish a baseline profile of talk expressions for an individual prior to becoming involved in a communication skills workshop. The scales can provide a specific structure for working on learning new talk patterns, or changing old talk patterns. Through a retest procedure, the scales can be used to determine if change has occurred as a result of training.

The comeme structures may have relevance for the cognitive-oriented therapist who uses verbally mediated self-control, self-talk and self-instruction as ways to change attitudes and behavior (e.g., Ellis, 1975, Meichenbaum, 1977; Craighead, 1979, McMullin, 1986). The marital therapist may find that scale score differences between partners on the talk structures may be an important factor in understanding a couple's communication problems. Such difference can be revealed rather quickly in comparing partner profiles. The talk structures will have relevance for the psychotherapist who uses talk

restructuring as a therapeutic strategy in individual and marital therapy (Wanberg, 1988).

The talk scales also appear to have heuristic value. They are being used as predictor variables and covariates in several studies being conducted or supervised by the authors, including studies in the areas of leadership styles, psychotherapy, gender differences, and personality research.

Ongoing work is being conducted on the scales themselves. The shorter and weaker scales are being strengthened, the hardiness of the comeme factors across different samples is being tested, different normative groups (reference groups) are being developed, and test-retest reliability studies are being conducted. Expansion beyond the 11 primary factors is needed. The 11 primary factors most likely do not account for all of the variance within the factor space specific to comeme structures.

Further work is needed in the area of construct validation. Cronbach (1986) notes "construct validation employs various probes to check on interpretations, then assesses and reports the strengths and limits of the interpretive principles" (p. 3). Yet, the testing of constructs is a long and tedious process. As Cronbach laments, "for even one construct, developing a sturdy interpretation takes a long time. Nearly a century has elapsed between Binet's first efforts to characterize intelligence and our present modest understanding" (p. 16). Yet, he continues with a note of optimism: "As, slowly, a construction becomes more precise, elaborate and refined probes into validity tend to repay the extra investment they require" (p. 16).

The constructions developed in this research have only been ever so minutely tested. How much variance accounted for by the comeme structures is due to personality traits and characteristics? How do the comeme structures correlate with other empirically defined communication factors? Do situational and contextual factors determine which kinds of comeme structures are used? Could the various scales be used as instruments to rate observations of individuals involved in group or dyadic interactions? How do persons with psychological problems differ from normals with respect to the use of the talk structures? These are only a few of the many construct validity questions that can be addressed.

This research has presented some evidence that the comeme and the comeme structures appear to fit into a nomological system. If they do in fact have some nomological validity, then what is their etiology? Do the parameters around their use become set at an early age? What is the developmental process through which the various comeme structures are learned (or not learned) or changed? Are the comeme structures determined by underlying personality traits? Or, do these structures determine the development of personality traits? Do the constructs themselves represent deep structures of talk communication, similar to Chomsky's (1972) generative grammar structures? The answers to these questions are not clear and are hypotheses to be tested.

What is clear, however, is that phenomena associated with human communication is very diverse, even within a confined domain of how people perceive themselves to use talk in interpersonal interactions. There are many ways that spoken language is used in the multiple phenomena of human communication. It is as these ways are defined through measurable constructs that we increase the power to explain, predict, and control phenomena associate with what we construe to be human communication.

Table 1
Talk Assessment Survey: Principal Axis Oblimin Solution for 49 Core Variables with Communalities (h2) (Decimal Points Omitted; Loadings of .30 or Above in Boldface)

| Item | Variable Description | Factor Loadings | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | h2 |
| 67. | Inquired into well being | **52** | 11 | 15 | 01 | 01 | 11 | -08 | 06 | 06 | -03 | 03 | 47 |
| 60. | Told someone they important | **62** | 01 | 11 | -07 | -11 | -07 | -10 | -15 | 21 | -02 | 15 | 59 |
| 35. | Praised someone | **67** | -01 | 07 | -03 | -03 | 08 | 05 | 03 | -01 | -09 | 03 | 58 |
| 33. | Acknowledged achievement | **74** | -31 | 02 | 04 | 04 | 02 | 05 | 11 | 04 | 13 | -09 | 67 |
| 36. | Gave moral support | **59** | 10 | -05 | -03 | -08 | 02 | 12 | 04 | 06 | 00 | 00 | 45 |
| 26. | Critical of someone | 04 | **58** | 02 | -02 | -01 | -03 | 04 | 01 | 00 | 13 | -06 | 40 |
| 90. | Used judgmental words | -09 | **57** | 11 | -03 | 20 | -05 | -07 | 02 | 13 | 03 | 00 | 50 |
| 121. | Found fault with someone | -01 | **46** | -08 | 10 | 19 | -09 | 03 | 04 | 07 | 29 | -09 | 50 |
| 13. | Used blaming statements | 04 | **51** | -01 | 10 | 18 | 06 | 12 | 09 | 00 | -02 | -04 | 42 |
| 103. | Used words to condemn someone | -06 | **59** | 05 | 10 | -03 | 05 | 01 | -01 | -12 | 09 | 03 | 42 |
| 114. | Offered different solutions | 19 | 03 | **44** | 02 | 07 | 03 | 08 | -14 | -17 | 09 | -02 | 37 |
| 84. | Suggested different approaches | 00 | 07 | **72** | -09 | -05 | 25 | -04 | 00 | -05 | 07 | -09 | 62 |
| 59. | Offered ideas to someone | 04 | -02 | **54** | 00 | 04 | -13 | -01 | 10 | 09 | 03 | 12 | 42 |
| 83. | Gave example to someone | -02 | 00 | **59** | 01 | 04 | 00 | 17 | 09 | 06 | -09 | 11 | 50 |
| 81 | Made recommendations | 09 | 03 | **43** | -06 | 11 | -04 | 19 | 08 | -01 | 13 | -09 | 42 |
| 15. | Quieter than other people | 00 | -15 | -01 | **69** | 08 | -15 | 00 | 07 | 00 | -01 | -08 | 57 |
| 58. | Kept my mouth shut | -06 | -11 | -10 | **58** | -14 | 09 | -02 | 15 | 10 | 09 | -16 | 51 |
| 82. | Hesitated to speak | -08 | 09 | 00 | **73** | -11 | -08 | 06 | 08 | 00 | -03 | 03 | 57 |
| 85. | Evaded talking to people | 03 | 13 | -08 | **63** | 06 | 02 | -03 | -13 | 00 | -07 | 01 | 44 |
| 37. | Refused to talk | 06 | 04 | -10 | **43** | 09 | 14 | -01 | -03 | -01 | 06 | 01 | 25 |
| 57. | Argued with someone | 10 | 24 | -04 | 01 | **53** | 07 | -02 | -10 | 06 | -06 | 05 | 44 |
| 93. | Disagreed with someone | -03 | -03 | 04 | 10 | **66** | -06 | -07 | 05 | 03 | 01 | 10 | 48 |
| 98. | Tried convince someone wrong | -21 | 02 | 11 | -08 | **61** | 03 | 06 | 10 | 07 | 08 | -11 | 52 |
| 136. | Disputed what someone said | 10 | 10 | 04 | -08 | **30** | 05 | 14 | -18 | -07 | 18 | 08 | 32 |
| 6. | Expressed fear in words | -01 | -14 | 07 | 07 | 04 | **55** | 02 | 09 | 14 | 04 | 01 | 41 |
| 17. | Expressed sadness in words | 16 | 09 | 05 | -06 | -03 | **52** | -04 | -06 | 10 | 03 | 14 | 48 |
| 76. | Expressed worry in words | -01 | 21 | -01 | -01 | 00 | **39** | 01 | 14 | 17 | -06 | 19 | 43 |
| 22. | Expressed sympathy in words | 29 | -02 | -01 | -08 | 04 | **36** | 08 | 23 | -09 | -03 | 07 | 41 |
| 40. | Paraphrased what someone said | 08 | 04 | -10 | 02 | -10 | -10 | **76** | 00 | 14 | 01 | 00 | 66 |
| 74. | Interpreted what someone said | 05 | 18 | 02 | -05 | -02 | -03 | **50** | 09 | -05 | -01 | 00 | 33 |
| 29. | Summarized what someone said | 00 | -19 | 11 | 06 | 04 | -07 | **72** | 03 | -03 | -02 | 10 | 60 |
| 97. | Explained what heard | -04 | -01 | 04 | -05 | 05 | 08 | **49** | -01 | 13 | 03 | 21 | 42 |
| 7. | Clarified what someone said | -05 | 02 | 00 | 00 | 03 | 16 | **58** | -04 | -05 | 10 | -06 | 42 |
| 19. | Asked help from someone | 10 | -01 | 04 | -06 | 02 | 07 | 13 | **51** | 17 | 05 | -01 | 45 |
| 100. | Asked for assistance | -07 | 05 | 08 | 07 | 07 | 13 | -04 | **51** | -03 | 05 | 09 | 37 |
| 75. | Looked for help solve problem | 13 | 24 | 14 | -06 | -19 | -07 | -05 | **39** | 16 | 08 | 19 | 50 |
| 41. | Asked for information | 23 | 03 | -01 | 05 | 01 | 00 | 11 | **39** | -14 | -11 | 14 | 33 |
| 109. | Asked for forgiveness | 10 | -01 | -06 | 00 | -12 | 11 | 10 | -07 | **58** | 09 | 15 | 52 |
| 135. | Asked excuse of behavior | -01 | 10 | 05 | 13 | 04 | 00 | -02 | 04 | **34** | 07 | 20 | 28 |
| 130. | Told someone was sorry | 07 | -02 | 06 | 00 | 08 | 08 | 05 | 00 | **77** | -11 | -05 | 64 |
| 108. | Apologized to someone | 01 | -04 | -07 | -01 | 08 | 01 | -02 | 04 | **84** | 01 | -06 | 71 |
| 110. | Made boastful statements | -00 | 02 | 00 | 03 | 01 | 00 | 02 | -05 | 01 | **69** | 08 | 52 |
| 118. | Used arrogant words | -06 | 07 | 00 | 00 | -02 | 07 | 14 | -06 | -01 | **58** | -06 | 41 |
| 124. | Bragged about something | 00 | 06 | 04 | -02 | 04 | -03 | -22 | 17 | 02 | **75** | 07 | 67 |
| 140. | Described past successes | 09 | 04 | 17 | -08 | 02 | -05 | 11 | 03 | -03 | **45** | 09 | 40 |
| 73. | Expressed your hopes | 18 | -06 | -08 | -08 | 16 | -09 | 03 | 11 | 07 | 04 | **55** | 51 |
| 125. | Described your desires | 03 | -01 | 05 | -12 | -06 | 12 | 17 | -01 | 05 | 05 | **58** | 58 |
| 119. | Told someone your wishes | 00 | -02 | 06 | -13 | 05 | 09 | 02 | 09 | 05 | 01 | **67** | 65 |
| 133. | Expressed your dreams | -09 | -07 | 05 | 07 | 00 | 08 | 00 | 06 | 00 | 12 | **75** | 63 |

Table 2
Scales of the Talk Assessment Survey (TAS): Item Number and Description, Correlation of Item with Scale (R), the First Principal component (FPC) Loading from a Factoring of the Items in Each Scale, and the Internal Consistency Reliability (ICR) for the Scale When That Item is Eliminated (Decimal Points Omitted)

| Factor Name and Item Description | R | FPC | ICR |
|---|---|---|---|
| **Scale 1: SUPPORT - Supportive Confirmation of Others** | | | |
| 67. Inquired about another's well being | 67 | 69 | 83* |
| 60. Told someone they were important | 73 | 72 | 82* |
| 35. Used words to praise someone | 76 | 77 | 82* |
| 33. Acknowledged someone's achievements | 75 | 75 | 82* |
| 36. Gave moral support with words | 68 | 70 | 83* |
| 12. Used kind and loving words | 71 | 70 | 83 |
| 14. Encouraged participation | 57 | 57 | 78 |
| 70. Said thank you to someone | 35 | 38 | 85 |
| 80. Expressed respect for someone | 67 | 65 | 83 |
| 89. Supported another person's position | 42 | 41 | 85 |
| 92. Listened to concerns of another person | 52 | 51 | 84 |
| **Scale 2: CRITICIZE - Hypercritical, Evaluative** | | | |
| 26. Was critical of someone | 67 | 69 | 81* |
| 13. Used blaming statements | 62 | 63 | 82* |
| 90. Used judgmental words | 67 | 68 | 81* |
| 103. Used words to condemn someone | 67 | 67 | 81* |
| 121. Found fault with someone | 70 | 71 | 81* |
| 46. Showed disgust with words | 53 | 51 | 83 |
| 65. Ridiculed someone | 71 | 71 | 81 |
| 68. Make sarcastic remarks | 67 | 63 | 82 |
| 101. Laughed at someone | 69 | 70 | 81 |
| **Scale 3: INFORM - Facilitative, Information Input** | | | |
| 59. Offered ideas to someone | 63 | 66 | 79* |
| 81. Made recommendations to someone | 67 | 71 | 78* |
| 83. Gave an example to someone | 67 | 67 | 79* |
| 84. Suggested different approaches | 65 | 67 | 79* |
| 114. Offered different solutions | 56 | 58 | 80* |
| 05. Gave suggestions to someone | 61 | 61 | 79 |
| 16. Gave advice to someone | 61 | 59 | 79 |
| 18. Gave information or knowledge | 61 | 59 | 79 |
| 38. Answered questions | 51 | 43 | 81 |
| 69. Gave opinions to someone | 61 | 62 | 79 |
| **Scale 4: RETICENT - Reticence versus Talkative, Assertive** | | | |
| 15. Quieter than other people | 76 | 79 | 79* |
| 37. Refused to talk | 52 | 52 | 81* |
| 58. Kept your mouth shut | 68 | 70 | 80* |
| 82. Hesitated to speak | 70 | 73 | 79* |
| 85. Evaded talking to people | 62 | 66 | 80* |
| 4. Seldom led discussion | 62 | 60 | 81 |
| 25. Quiet when didn't like topic | 50 | 49 | 82 |
| 48. Quiet until heard what other said | 46 | 51 | 80 |
| 62. Never initiated discussion | 61 | 61 | 82 |
| 95. Seldom made small talk | 45 | 42 | 82 |
| 112. Seldom started a conversation | 65 | 65 | 80 |
| **Scale 5: ARGUE - Argumentative and Rhetorical** | | | |
| 57. Argued with someone | 67 | 70 | 64* |
| 93. Disagreed with someone | 63 | 68 | 66* |
| 98. Convince someone they were wrong | 72 | 75 | 62* |
| 136. Disputed what someone said | 58 | 58 | 64* |
| 120. Ended a conversation | 41 | 39 | 71 |
| 141. Tried to change someone's mind | 58 | 52 | 69 |
| 23. Used angry words | 58 | 59 | 67 |
| **Scale 6: EMOTIVE - Emotional, Expressive** | | | |
| 6. Expressed fear in words | 62 | 62 | 74* |
| 17. Expressed sadness in words | 76 | 77 | 70* |
| 22. Expressed sympathy in words | 63 | 63 | 74* |
| 76. Expressed worry in words | 71 | 72 | 72* |
| 28. Expressed guilt in words | 66 | 64 | 74 |
| 96 Put your feelings into words | 69 | 68 | 73 |
| **Scale 7: FEEDBACK - Reflective, Other Oriented** | | | |
| 7. Clarified what someone said | 60 | 59 | 85* |
| 29. Summarized what someone said | 72 | 73 | 83* |
| 40. Paraphrased what someone said | 70 | 78 | 83* |
| 97. Explained what heard someone say | 68 | 68 | 84* |
| 74. Interpreted what someone said | 66 | 66 | 84* |
| 9. Reflected someone's thoughts | 66 | 65 | 84 |
| 51. Reflected other people's feelings | 67 | 66 | 84 |
| 54. Repeated back someone's words | 69 | 68 | 83 |
| 77. Gave feedback on what somewhat said | 65 | 65 | 83 |
| **Scale 8: HELPSEEK - Help and Information Seeking** | | | |
| 19. Asked for help from someone | 72 | 74 | 66* |
| 41. Asked for information | 68 | 67 | 68* |
| 75. Looked for help in solving a problem | 71 | 72 | 67* |
| 100. Asked for help in finding something | 60 | 61 | 70* |
| 8. Asked questions | 54 | 46 | 74 |
| 30. Asked for guidance | 67 | 68 | 68 |
| **Scale 9: APOLOGIZE - Request Pardon or Forgiveness** | | | |
| 109. Ask for forgiveness | 72 | 75 | 70* |
| 135. Asked someone to excuse your behavior | 65 | 65 | 72* |
| 108. Apologized to someone | 72 | 78 | 70* |
| 130. Told someone you were sorry | 72 | 77 | 70* |
| 106. Pardoned yourself | 57 | 54 | 75 |
| 116. Used pleading words | 55 | 51 | 75 |
| 139. Asked permission to speak | 56 | 58 | 76 |
| **Scale 10: BOAST - Aggrandizement of Self** | | | |
| 110. Make boastful statements | 73 | 76 | 69* |
| 118. Used arrogant words | 63 | 66 | 72* |
| 124. Bragged about something | 71 | 75 | 70* |
| 140. Described past successes | 66 | 66 | 72* |
| 107. Coaxed someone | 51 | 47 | 75 |
| 131. Exaggerated a story or issue | 53 | 45 | 76 |
| 122. Charmed someone with words | 66 | 66 | 72 |
| **Scale 11: EXPECTANT - Hope Seeking and Need Fulfillment** | | | |
| 73. Expressed your hopes | 74 | 75 | 79* |
| 119. Told someone your wishes | 79 | 82 | 78* |
| 125. Described your desires | 76 | 79 | 78* |
| 133. Expressed your dreams | 74 | 75 | 78* |
| 111. Expressed likes | 63 | 62 | 81 |
| 91. Asked confirmation of your feelings | 62 | 57 | 81 |
| 53. Talked about personal problems | 58 | 54 | 82 |

Table 3
Talk Assessment Survey: Intercorrelations* Among Eleven Talk Assessment Factor Scale Scores (Lower Triangle) and Intercorrelations among the Eleven Oblimin Factors (Upper Triangle)

| Name of Scale | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. SUPPORT | | 04 | 28 | -17 | -05 | 23 | 22 | 17 | 22 | -02 | 29 |
| 2. CRITICIZE | -10 | | 17 | 10 | 29 | 10 | 11 | 05 | 06 | 30 | 09 |
| 3. INFORM | 43 | 28 | | -23 | 18 | 10 | 29 | 17 | 03 | 23 | 25 |
| 4. RETICENT | -34 | 09 | -40 | | 09 | -02 | -12 | 05 | 05 | 01 | -21 |
| 5. ARGUE | 03 | 54 | 33 | 00 | | 08 | 08 | -03 | 08 | 23 | 10 |
| 6. EMOTIVE | 48 | 16 | 33 | -21 | 17 | | 15 | 16 | 19 | 10 | 22 |
| 7. FEEDBACK | 38 | 24 | 43 | -20 | 18 | 37 | | 12 | 02 | 21 | 18 |
| 8. HELPSEEK | 51 | 14 | 41 | -14 | 20 | 52 | 39 | | 22 | 03 | 27 |
| 9. APOLOGIZE | 31 | 18 | 08 | 02 | 20 | 50 | 20 | 36 | | 05 | 36 |
| 10. BOAST | 11 | 52 | 36 | -12 | 43 | 21 | 34 | 15 | 27 | | 14 |
| 11. EXPECTANT | 49 | 18 | 40 | -33 | 21 | 56 | 43 | 54 | 41 | 34 | |

Table 4
Talk Assessment Survey: Second Order Common Factor Solution Derived from the Intercorrelations Among the Final Scale Scores with Factor Eigenvalues (EV), and Percent Variance Accounted (PVA) for by each Factor. Also includes Intercorrelations Among the Three Second Order Scales (As Provided in Table 3)

| | Factor Loadings* | | | Factor Statistics | | |
|---|---|---|---|---|---|---|
| Name of Scale | A | B | C | Factor | EV | PVA |
| 1. SUPPORT | 56 | -21 | 40 | A. | 4.04 | 36.7 |
| 2. CRITICIZE | -05 | 88 | -11 | B. | 1.82 | 53.2 |
| 3. INFORM | 02 | 35 | 68 | C. | 1.24 | 64.5 |
| 4. RETICENT | -02 | 07 | -56 | D. | .75 | 71.3 |
| 5. ARGUE | 02 | 63 | -02 | E. | .69 | 77.6 |
| 6. EMOTIVE | 74 | 01 | 04 | F. | .50 | 82.1 |
| 7. FEEDBACK | 29 | 21 | 32 | G. | .47 | 86.4 |
| 8. HELPSEEK | 60 | 02 | 17 | H. | .45 | 90.5 |
| 9. APOLOGIZE | 75 | 08 | -32 | I. | .38 | 93.9 |
| 10. BOAST | 07 | 62 | 10 | J. | .34 | 97.0 |
| 11. EXPECTANT | 60 | 10 | 24 | K. | .33 | 100.0 |

Intercorrelations
Second Order

| | | |
|---|---|---|
| Scale A | | |
| Scale B | 19 | |
| Scale C | 36 | 16 |

* Decimal points on factor loadings and intercorrelations omitted

Table 5
Talk Assessment Survey: Three Factor Principal Axis Oblimin Solution for the 51 Items in the Three Second Order Scales

| Factor Name and Item Description | Factor Loadings* A | B | C |
|---|---|---|---|
| **Dimension A: INVOLVEMENT** | | | |
| 17. Expressed sadness in words | 52 | 00 | 00 |
| 19. Asked for help from someone | 52 | 00 | 00 |
| 28. Expressed guilt in words | 66 | 00 | 00 |
| 30. Asked for guidance | 66 | 00 | 00 |
| 32. Spoke highly of someone | 61 | 00 | 00 |
| 33. Acknowledged someone's achievements | 55 | 00 | 00 |
| 36. Gave moral support with words | 53 | 00 | 00 |
| 40. Paraphrased what someone said | 34 | 00 | 00 |
| 41. Asked for information | 46 | 00 | 00 |
| 51. Reflected other people's feelings | 34 | 00 | 00 |
| 60. Told someone they were important | 58 | 00 | 00 |
| 71. Used comforting words | 52 | 00 | 00 |
| 73. Expressed your hopes | 52 | 00 | 31 |
| 75. Looked for help to solve problem | 54 | 00 | 00 |
| 76. Expressed worry in words | 53 | 00 | 00 |
| 97. Explained what heard someone say | 39 | 00 | 00 |
| 108. Apologized to someone | 62 | 00 | 00 |
| 109. Ask for forgiveness | 65 | 00 | 00 |
| 125. Described your desires | 51 | 00 | 31 |
| 130. Told someone you were sorry | 66 | 00 | 00 |
| **Dimension B: BELLICOSE** | | | |
| 13. Used blaming statements | 00 | 59 | 00 |
| 23. Used angry words | 00 | 47 | 00 |
| 26. Was critical of someone | 00 | 54 | 00 |
| 57. Argued with someone | 00 | 51 | 00 |
| 65. Ridiculed someone | 00 | 66 | 00 |
| 68. Make sarcastic remarks | 00 | 62 | 00 |
| 72. Pointed out someone's discrepancies | 00 | 56 | 00 |
| 90. Used judgmental statements | 00 | 63 | 00 |
| 93. Disagreed with someone | 00 | 49 | 00 |
| 98. Convince someone they were wrong | 00 | 57 | 00 |
| 107. Coaxed someone | 00 | 38 | 00 |
| 110. Made boastful statements | 00 | 51 | 00 |
| 118. Used arrogant words | 00 | 51 | 00 |
| 121. Found fault with someone | 00 | 67 | 00 |
| 124. Bragged about something | 00 | 53 | 00 |
| 132. Persuaded someone | 00 | 31 | 00 |
| 136. Disputed what someone said | 00 | 46 | 00 |
| 141. Tried to change someone's mind | 00 | 48 | 00 |
| **Dimension C: INFORMATIVE** | | | |
| 04. Seldom led discussion | 00 | 00 | -70 |
| 15. Quieter than other people | 00 | 00 | -69 |
| 18. Gave information or knowledge | 00 | 00 | 57 |
| 38. Answered questions | 00 | 00 | 32 |
| 58. Keep my mouth shut | 00 | 00 | -65 |
| 59. Offered ideas to someone | 00 | 00 | 39 |
| 62. Seldom initiated discussion | 00 | 00 | -59 |
| 63. Recommended an idea | 00 | 00 | 51 |
| 69. Gave opinions to someone | 00 | 00 | 49 |
| 82. Hesitated to speak | 00 | 00 | -65 |
| 85. Evaded talking to people | 00 | 00 | -53 |
| 104. Provided examples | 00 | 00 | 52 |
| 112. Started a conversation | 00 | 00 | 59 |

* Factor loadings under .30 set to zero; decimal points on factor loadings omitted.

Table 6
Scales of the Talk Assessment Survey: Number of items in Each Scale (No. Items), and Mean, Standard deviation (SD), Internal Consistency Reliability (ICR), Squared Multiple Correlations (SMR), and Percent of Unique Variance (PUV) for N = 224

| Name of Scale | No. Items | Mean | SD | ICR* | SMR* | PUV* |
|---|---|---|---|---|---|---|
| Primary Scales | | | | | | |
| 1. SUPPORT | 11 | 24.75 | 4.94 | .84 | .49 | .35 |
| 2. CRITICIZE | 9 | 12.85 | 4.63 | .84 | .47 | .36 |
| 3. INFORM | 10 | 19.60 | 4.37 | .82 | .47 | .34 |
| 4. RETICENT | 11 | 15.92 | 5.70 | .82 | .30 | .52 |
| 5. ARGUE | 7 | 10.37 | 3.16 | .70 | .34 | .36 |
| 6. EMOTIVE | 6 | 7.12 | 2.88 | .76 | .48 | .28 |
| 7. FEEDBACK | 9 | 16.76 | 4.61 | .85 | .33 | .52 |
| 8. HELPSEEK | 6 | 10.77 | 3.02 | .73 | .48 | .25 |
| 9. APOLOGIZE | 7 | 11.46 | 3.57 | .76 | .37 | .39 |
| 10. BOAST | 7 | 9.71 | 3.67 | .75 | .41 | .34 |
| 11. EXPECTANT | 7 | 12.15 | 4.19 | .82 | .52 | .30 |
| Second Order Scales | | | | | | |
| A. INVOLVEMENT | 20 | 37.04 | 8.63 | .88 | .15 | .65 |
| B. BELLICOSE | 18 | 23.09 | 6.74 | .84 | .04 | .80 |
| C. INFORMATIVE | 13 | 23.45 | 6.25 | .84 | .14 | .74 |

Table 7
Correlations Between the Scales of the TAS and Socioeconomic Status of Family of Origin (SE), Judged Comunication Skills (JCS) of Family of Origin, Education (ED), Age, and Gender; the Mean Mean and Standard Deviation for the Quasi-Independent Variables; Internal Consistency Reliability (ICR) for the SE and JCS Scales; Total N of 220 Subjects (Decimal Points on Correlation Coefficients Omitted)

| Name of Scale | NS | Correlation Coefficients SE | JCS | ED | AGE | GENDER |
|---|---|---|---|---|---|---|
| Primary Scales | | | | | | |
| 1. SUPPORT | | -06 | 19* | 06 | 18* | 25** |
| 2 CRITICIZE | | 07 | 04 | -13 | -33** | -10 |
| 3. INFORM | | 05 | 25** | 08 | 05 | -06 |
| 4. RETICENT | | -01 | -30** | 16* | 22** | 10 |
| 5. ARGUE | | 10 | 13 | -03 | -25** | -13 |
| 6. EMOTIVE | | 02 | 03 | -05 | 10 | 30** |
| 7. FEEDBACK | | 00 | 04 | 00 | -05 | -01 |
| 8. HELPSEEK | | -01 | 08 | 00 | 03 | 21** |
| 9. APOLOGIZE | | -02 | 05 | -10 | -13 | 20* |
| 10. BOAST | | 22** | 15 | 09 | -33** | -20* |
| 11. EXPECTANT | | 10 | 14 | -07 | 11 | 17* |
| Second Order Scales | | | | | | |
| A. INVOLVEMENT | | 00 | 10 | -05 | 01 | 29** |
| B. BELLICOSE | | 18* | 16* | -06 | -36** | -19* |
| C. INVORMATIVE | | 05 | 32** | 15 | 21* | -08 |
| Mean | | 12.81 | 6.38 | 14.52 | 27.20 | 1.63 |
| SD | | 3.86 | 1.79 | 1.71 | 10.76 | .48 |
| ICR | | .76 | .50 | | | |



* P< .01
Male gender scored 1, female gender scored 2

# TALK ASSESSMENT PROFILE

| Percentile | 1 SUPPORT | 2 FEEDBACK | 3 HELPSEEK | 4 HOPESEEK | 5 APOLOGIZE | 6 EMOTIVE | 7 INFORM | 8 RETICENT | 9 ARGUE | 10 CRITICIZE | 11 BOAST | A INVOLVE | B INFORMATIVE | C BELLICOSE | Decile Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | -33-- | -27-- | -18-- | -21-- | -21-- | -18-- | -30-- | -33-- | -21-- | -27-- | -21-- | -60-- | -39-- | -54-- | ---- |
| | --- | 25- | 16- | 19- | 18- | 15- | 29- | 29- | 18- | 24- | 18- | 53- | 36- | 45- | |
| | 32- | 24- | 15- | --- | 17- | --- | 27- | 27- | 16- | 20- | 16- | 52- | 34- | 37- | 10 |
| | --- | --- | --- | 18- | --- | 13- | 26- | 25- | 14- | 19- | 15- | 50- | 32- | 36- | |
| | 31- | 23- | --- | --- | 16- | --- | 25- | 24- | --- | 18- | --- | 48- | 31- | 35- | |
| 90 | ----- | -22-- | ----- | ----- | ----- | ----- | ----- | ----- | -14-- | ----- | -14-- | ----- | ----- | -34-- | ---- |
| | --- | --- | 14- | 17- | --- | 12- | 24- | 23- | --- | --- | --- | 47- | 13- | 33- | |
| | 30- | 21- | --- | --- | --- | --- | --- | 22- | --- | 17- | --- | 45- | 29- | 32- | 9 |
| | --- | --- | --- | 16- | 15- | --- | --- | 21- | 13- | --- | --- | --- | --- | --- | |
| | --- | 20- | 13- | --- | --- | --- | 23- | 20- | --- | --- | 13- | --- | --- | 31- | |
| 80 | ----- | ----- | ----- | ----- | ----- | -11-- | ----- | ----- | ----- | ----- | ----- | -44-- | -28-- | ----- | ---- |
| | 29- | --- | --- | 15- | 14- | --- | --- | --- | --- | 16- | --- | --- | --- | 30- | |
| | --- | --- | --- | --- | --- | --- | --- | 19- | --- | --- | 12- | 43- | --- | --- | |
| | 28- | --- | --- | --- | --- | --- | 22- | --- | 12- | --- | --- | --- | --- | --- | 8 |
| | --- | 19- | 12- | 14- | 13- | --- | --- | --- | --- | --- | --- | 42- | 27- | --- | |
| 70 | ----- | ----- | ----- | ----- | ----- | -10-- | ----- | -18-- | ----- | ----- | ----- | ----- | ----- | -29-- | ---- |
| | 27- | --- | --- | --- | --- | --- | --- | --- | --- | 15- | 11- | 41- | --- | --- | |
| | --- | --- | --- | --- | --- | --- | 21- | 17- | 11- | --- | --- | --- | 26- | --- | 7 |
| | --- | 18- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 40- | --- | 28- | |
| | --- | --- | --- | 13- | 12- | --- | --- | --- | --- | --- | 10- | --- | --- | --- | |
| 60 | -26-- | ----- | ----- | ----- | ----- | --9-- | ----- | ----- | ----- | -14-- | ----- | -39-- | -25-- | ----- | ---- |
| | --- | --- | 11- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 27- | |
| | --- | --- | --- | --- | --- | --- | 20- | 16- | --- | --- | --- | --- | --- | 26- | 6 |
| | 25- | 17- | --- | --- | --- | --- | --- | --- | 10- | 13- | --- | --- | 24- | --- | |
| | --- | --- | --- | 12- | 11- | --- | --- | --- | --- | --- | -9- | 38- | --- | 25- | |
| 50 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ---- |
| | --- | --- | --- | --- | --- | --- | 19- | 15- | --- | --- | --- | 37- | 23- | 24- | |
| | 24- | 16- | --- | --- | --- | -8- | --- | --- | --- | 12- | --- | 36- | --- | 23- | 5 |
| | --- | --- | 10- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |
| | --- | --- | --- | 11- | 10- | --- | 18- | 14- | -9- | --- | --- | --- | 22- | --- | |
| 40 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | -22-- | ---- |
| | 23- | --- | --- | --- | --- | --- | --- | --- | --- | 11- | --- | 35- | --- | --- | |
| | --- | --- | --- | --- | --- | -7- | --- | 13- | --- | --- | -8- | --- | --- | 21- | 4 |
| | --- | 15- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 34- | 21- | --- | |
| | 22- | --- | -9- | --- | --- | --- | 17- | --- | --- | 10- | --- | 33- | --- | --- | |
| 30 | ----- | ----- | ----- | -10-- | --9-- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | -20-- | ----- | ---- |
| | --- | 14- | --- | --- | --- | --- | --- | 12- | --- | --- | --- | 32- | --- | 20- | |
| | --- | --- | --- | --- | --- | -6- | --- | --- | -8- | --- | -7- | 31- | 19- | --- | 3 |
| | 21- | --- | --- | --- | --- | --- | 16- | --- | --- | -9- | --- | --- | --- | --- | |
| | --- | 13- | -8- | -9- | -8- | -5- | --- | --- | --- | --- | --- | 30- | --- | 19- | |
| 20 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | -11-- | ----- | ----- | ----- | ----- | -18-- | ----- | ---- |
| | 20- | --- | --- | -8- | --- | --- | --- | --- | -7- | -8- | -6- | 29- | --- | --- | |
| | --- | 12- | -7- | --- | --- | --- | 15- | --- | --- | --- | --- | 27- | 17- | 18- | 2 |
| | --- | --- | --- | --- | -7- | -4- | --- | 10- | --- | --- | -5- | --- | 16- | 17- | |
| | 19- | 11- | --- | -7- | --- | --- | --- | --- | -6- | -7- | --- | 26- | 15- | 16- | |
| 10 | -18-- | ----- | ----- | ----- | ----- | ----- | -14-- | --9-- | ----- | ----- | ----- | -25-- | -14-- | -15-- | ---- |
| | 17- | 10- | -6- | -6- | -6- | -3- | --- | 8- | --- | -6- | --- | 24- | --- | 14- | |
| | 16- | -8- | --- | -5- | -5- | --- | 12- | -7- | --- | -5- | -4- | 23- | 13- | 13- | 1 |
| | --- | -7- | -5- | -3- | --- | --- | 10- | -5- | -5- | --- | -3- | 21- | 12- | 12- | |
| | 10- | -6- | -4- | -1- | -4- | -2- | -9- | 4- | -4- | -3- | -2- | 18- | -9- | -9- | |
| 0 | --0-- | --0-- | --0-- | --0-- | --0-- | --0-- | --0-- | --0-- | --0-- | --0-- | --0-- | --0-- | --0-- | --0-- | ---- |

Raw Score ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

Primary Scales

Second Order Scales

Reference Group: 224 college students and non-students with mean age of 27 years, 62 % males, and average education of 14.5 years.

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## REFERENCES


Austin, J. L. (1962). How to do things with words. Cambridge: Harvard University Press.

Bach, K., & Harnish, R. M. (1979). Linguistic communication and speech acts. Cambridge, MA: The MIT Press.

Bailey, W. (1984). Participation and the semiotic mediation of inter-subjectivity, Paper presented at the Western Speech Communication Association Conference, Seattle, Washington.

Bales, R. F. (1950). Interaction process analysis: A method for the study of small groups. Cambridge, MA: Addison-Wesley.

Bales, R. F. (1970). Personality and interpersonal behavior. New York: Holt, Rinehart & Winston.

Ballmer, Th., & Brennenstuhl, W. (1981). Speech act classification: A study in the lexical analysis of english speech activity verbs. New York: Springer-Verlag.

Barnlund, D. (1968). Interpersonal communication: Survey and studies. Boston: Houghton Mifflin.

Bell, R. A. (1986). The multivariate structure of communication avoidance. Communication Monographs, 53, 365-375.

Booth-Butterfield, S., & Gould, M. (1986). The communication anxiety inventory: Validation of state and context communication apprehension. Communication Quarterly, 34, 194-205.

Burgoon, J. K. (1976). The unwillingness-to-communicate scale: Development and validation. Communication Monographs, 13, 60-69.

Burgoon, J. K., & Hale, J. L. (1984). The fundamental topoi of relational communication. Communication Monographs, 51, 193-214.

Burgoon, J. K., & Hale, J. L. (1987). Validation and measurement of the fundamental themes of relational communication. Communication Monographs, 54, 19-41.

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminent validation by the multitrait-multimethod matrix. Psychological Bulletin, 56, 81-105.

Carroll, J. B. (1958). Oblimin rotation solution in factor analysis: Computing program for the IBM 704. Harvard University.

Cegala, D. J., Savage, G. T., Brunner, C. C., & Conrad, A. B. (1982). An elaboration of the meaning of interaction involvement: Toward the development of a theoretical concept. Communication Monograph, 49, 229-248.

Chmielewski, T. L. (1986). Communicator motivation: Toward conceptualization and measurement. A paper presented at the Speech Communication Association convention, Chicago, IL.

Chomsky, N. (1972). Language and mind. New York: Harcourt, Brace Jovanovich.

Cirlin, A. (1985). An interactional approach to predicting communication behavior. A paper presented at the Speeach communication Association Convention, Denver, CO.

Craighead, L. W. (1979). Self-instructional training for assertion-refusal behavior. Behavior Therapy, 10, 529-542.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16, 297-334.

Cronbach, L. J. (1984). Essentials of psychological testing. New York: Harper & Row.

Cronbach, L. L. (1986). Construct validation after thirty years In R. Linn (Ed.): Intelligence: Measurement, theory and public policy. Urbana, IL: University of Illinois Press.

Cronen, V. E., Pearce, W. B., & Harris, L. M. (1982). The coordinated management of meaning: A theory of communication, In F.E.X. Dance (Ed.), Human communication theory: Comparative essays. New York: Harper & Row.

Cupach, W. R., & Spitzbaerg, B. H. (1981). Relational competence: Measurement and validation. Paper presented at the Western Speech Communication Association Conference, San Jose, CA.

Dance, F.E. X. (1982). A speech theory of human communication. In F.E.X. Dance (Ed.) Human communication theory: Comparative essays. New York: Harper & Row.

D'Andrade, R. G., & Wish, M. (1985). Speech act theory in quantitative quantitative research on interpretive behavior. Discourse Processes, 8, 229-259.

Delia, J. G., O'Keefe, B., & O'Keefe, D. J. (1982). The constructivist structivist approach to communication. In F.E.X. Dance (Ed.) Human communication theory: Comparative essays. New York: Harper & Row.

Duran, R. L. (1983). Communicative adaptability: A measure of social communicative competence. Communication Quarterly, 31, 320-326.

Ellis, A. (1975). Reason and emotion in psychotherapy. Hollywood: re.

Fisher, B. A. (1970). Decision emergence: Phases in group decision making. Speech Monographs, 37, 257-262.
Fisher, B. A. (1980). Small group decision making: Communicating and the cating and the group process. New York: McGraw-Hill.
Fraser, B. (1981). On apologizing. In F. Coulmas (Ed.), Conversational routine: Explorations in standarized communication situations and prepatterned speech. New York: Mouton Publishers.
Friedrich, G. W. (1970). An empirical explication of a concept of self-reported speech anxiety. Speech Monographs, 37, 67-72.
Gibb, J. P. (1972). Defensive communication. In J. Stewart (Ed.), Bridges not walls. Reading, MA: Addison-Wesley.
Goffman, E. (1971). Relations in public: Microstudies of the public order. New York: Basic Books.
Gorsuch, R. L. (1974). Factor analysis. London: W. B. Saunders.
Horn, J. L. (1965a). A rationale and test for the number of factors in factor analysis. Psychometrika, 30, 179-185.
Horn, J. L. (1965b). An empirical comparison of available methods for obtaining factor scores. Educational and Psychological Measurement, 25, 313-322.
Horn, J. L. (1971). Discussion of models in personality theory. Proceedings: XIX International Congress in Psychology. London: British Psychological Society.
Horn, J. L. (1973). On extension analysis and its relation to correlations between variables and factor scores. Multivariate Behavior Research, 8, 131-171.
Horn, J. L., & Cattell, R. B. (1965). Vehicles, ipsatization and the multiple-method measurement of motivation. Canadian Journal of Psychology, 19, 265-279.
Horn, J. L., & Engstrom, R. O. (1979). Cattell's scree test in relation to Bartlett's Chi-square test and other observations on the number of factors problem. Multivariate Behavioral Research, 14, 283-300.
Horn, J. L., Wanberg, K. W., & Adams, G. (1982). Diagnosis of alcoholism. In E. M. Pattison (Ed.), Selection of Treatment for Alcoholics. New Brunswick, NJ: Rutgers Center for Alcohol Studies.
Horn, J. L., Wanberg, K. W., & Foster, F. M. (1987). The Alcohol Use Inventory (AUI): A Guide to Use. Minnetonka, MN: National Computer Systems.
Infante, D. A., & Rancear, A. (1982). A conceptualization and measure of argumentativeness. Journal of Personality Assessment, 46, 73-80.
Infante, D. A., & Wigley, C. J. (1986). Verbal aggressiveness: An interpersonal model and measure. Communication Monographs, 53, 61-69.
Ivey, A. E., & Simek-Downing, L. (1980). Counseling and psychotherapy: Skills, theories, and practice. Englewood Cliffs, NJ: Prentice-Hall.
Kaiser, H. F. (1958). The varimax criterion for analytic rotation in factor analysis. Psychometrika, 23, 187-200.
Likert, R. (1932). A technique for the measurement of attitudes. Archieves of Psychology, New York, No. 140.
Littlejohn, S. W. (1982). An overview of contributions to human communication theory from other disciplines. In F.E.X. Dance (Ed.), Human communication: Comparative essays. New York: Harper & Row.
Littlejohn, S. W. (1983). Theories of human communication. Belmont, CA: Wadsworth Publishing Company.
McCroskey, J. C. (1982). Oral communication apprehension: A reconceptualization. In M. Burgoon (Ed.), Communication Yearbook 6. Beverly Hills: Sage Publications.
McCroskey, J. C., & Baer, J. E. (1985). Willingness to communicate: The The construct and its measurement. Paper presented at the Speech Communication Association Convention, Denver, CO.
McDonald, R. P. (1985). Factor analysis and related methods. Hillsdale, NJ: Lawrence Erlbaum.
McMullin, R. E. (1986). Handbook of cognitive therapy techniques. New York: W. W. Norton & Company.
Meichenbaum, D. (1977) Cognitive-behavior modification: An integrated approach. New York: Plenum.
Miller, G. A. (1951). Language and communication. New York: McGraw-Hill.
Moursund, J. (1985). The process of counseling and therapy. Englewood Cliffs, NJ: Prentice-Hall.
Norton, R. W. (1978). Foundation of a communicator style construct. Human Communication Research, 4, 99-112.
Rubin, R. B. (1985). The validity of the communication competency assessment instrument. Communication Monographs, 52, 174-185.
Searle, J. R. (1969). Speech acts: An essay in the philosophy of language. Cambridge: Cambridge University Press.
Searle, J. R. (1971). What is a Speech Act. In J. R. Searle (Ed.), The philosophy of language. London: Oxford University Press.
Shannon, C., & Weaver, W. (1949). The mathematical theory of communication. Urbana, IL: University of Illinois Press.

Shimanoff, S. (1980). Communication rules: Theory and research. Beverly Hills, CA: Sage.

Tzeng, O. J. L., & Wang, W. S. Y. (1983). The first two R's. American Scientist, 71, 238-243.

Wanberg, K. W. (1983). The process and structure of therapeutic counseling: A client oriented, therapist directed model. Denver, CO: Colorado State Department of Health, Alcohol and Drug Abuse Division.

Wanberg, K. W. (1988). Talk restructuring as a psychotherapeutic strategy, Unpublished manuscript.

Wanberg, K. W., Horn, J. L., & Foster, F. M. (1977). A differential assessment model for alcoholism: The scales of the alcohol use inventory. Journal of Studies on Alcoholism, 38, 512-535.

Wanberg, K. W., & Horn, J. L. (1983). Assessment of alcohol use with multidimensional concepts and measures. American Psycholgist, 38, 1055-1069.

Wigley, C. J. III, & Graham, E. E. (1986). Laudativeness: An interpersonal model and measure. Paper presented at the Speech Communication Association Convention, Chicago, IL.

Wish, M., D'Andrade, R. G., & Goodnow, J. E., II. (1980). Dimensions Dimensions of interpersonal communication: Correspondences between structures for speech acts and bipolar scales. Journal of Personsonality and Social Psychology, 39, 848-860.

Zetterberg, H. L. (1965). On theory and verification in sociology. Totowa, NJ: Bedminister Press.